

*RETURN TO FMF - LOCATION 7540 PRE-EDIT

QUERY CONTROL FORM		RTIS USE ONLY	
Application No.	10 049 141	Prepared by	AMW
Examiner-GAU	M. FISHMAN	Date	5-20-04
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JACKET

a. Serial No.	f. Foreign Priority	k. Print Claim(s)	p. PTO-1449
b. Applicant(s)	g. Disclaimer	l. Print Fig.	q. PTOL-85b
c. Continuing Data	h. Microfiche Appendix	m. Searched Column	r. Abstract
d. PCT	i. Title	n. PTO-270/328	s. Sheets/Figs
e. Domestic Priority	j. Claims Allowed	o. PTO-892	t. Other

SPECIFICATION

- a. Page Missing
- b. Text Continuity
- c. Holes through Data
- d. Other Missing Text
- e. Illegible Text
- f. Duplicate Text
- (1) g. Brief Description
- h. Sequence Listing
- i. Appendix
- j. Amendments
- k. Other

CLAIMS

- a. Claim(s) Missing
- (2) b. Improper Dependency
- c. Duplicate Numbers
- d. Incorrect Numbering
- e. Index Disagrees
- f. Punctuation
- g. Amendments
- h. Bracketing
- i. Missing Text
- j. Duplicate Text
- k. Other

MESSAGE

① BRIEF DESCRIPTION cites

Figure 5a in two different descriptive sentences. Please resolve. (Please see page 10, lines 1-4.) Thank you.

② (POSSIBLE) IMPROPER DEPENDENCY: As amended,

Claims 7, 11, 13 and 15 each depend upon "any one of claim 3". If applicable, please correct.

③ (POSSIBLE) IMPROPER DEPENDENCY: Claim 18 depends upon

"claimed 16 or 17." If applicable, please correct.

Thank you. initials: AMW

RESPONSE ②+③ Changed wording.

① Problem is not that 5a is cited twice - it isn't - but that 3a + 4a aren't cited at all. Changed "and" in l. 1 to a hyphen (change supported by FRPR image 8). 2a-5a means 2a, 3a, 4a, 5a. 2b-5b = 2b, 3b, 4b, 5b.

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Figures 2a and 5a show the relative positions of the switch lever and the motor lever corresponding to Figures 2 - 5.

Figures 2b-5b shows a transverse section of part of the actuating means according to the invention,

5 Figure 6 is an illustrative view of the mechanism showing triggering of the snap through of the spring plate.

Figure 7 is a view of an air brake shown in a closed condition and in phantom in an open condition,

Figure 8 is an end view of the air brake actuator,

10 Figure 9 is a perspective view of part of the present invention at the regions of linkage arm connections to the switch lever and motor lever,

Figure 10 is a side view of the air brake switch actuator and portions of the linkage arms extending from the switch lever and motor lever, wherein also illustrated is a lock out pin for the optional and selective use to render the present invention inoperative,

15 Figure 11 shows an alternative to the pawl biasing arrangement, and

Figure 12 illustrates in detail and in an end view when compared to the view as shown for example in Figure 2, of the biasing assembly 120.

DETAILED DESCRIPTION OF THE DRAWINGS

20 Referring to Figure 1 there is shown an air break switch 124 actuated by an operating lever 2 located on a power pole 3. The switch is connected to the air break switch actuator 4 according to this invention by means of connecting rod 5. The connecting rod is connected to the switch lever 20 of the actuator. The motor lever 22 is connected to a linear actuator drive unit 8 which has a manual operating mechanism comprising an adjustable extension 8a coupled to a lever mechanism 8b. Preferably the drive unit is a linear electrical actuator with

provided as part of said linkage means a trigger means to move the direction of application of the biasing force at said toggle point.

3. (original) An air break switch actuator as claimed in claim 2 wherein said trigger means is engaged to the linkage mechanism and becomes operative, to move the direction of the biasing force when said connection means is at the toggle point, the direction being displaced responsive to the movement of said connection plate.

4. (original) An air break switch actuator as claimed in any one of claims 1 to 3 wherein said switch actuating means includes a switch lever rotatably movable about said axis between two positions corresponding to the open and closed positions of said switch.

5. (currently amended) An air break switch actuator as claimed in any one of claims 1 to 3 [[4]] wherein said operating means includes an operating lever rotatably movable about said axis.

6. (currently amended) An air break switch actuator as claimed in claim 3 [[5]] wherein said operating means includes an operating plate directly connected to and for rotation by said operating layer.

7. (currently amended) An air break switch actuator as claimed in ~~any one of claims 4 to 6~~ 3 wherein said switch actuation means includes a switch plate directly connected to said switch lever to operate the rotation of said switch lever respondent to the displacement thereof by the connection plate.

8. (currently amended) An air break switch actuator as claimed in any one of claims 1 to 3 [[7]] wherein at least one of said pins of said connection plate is engaged to and to displace said switch plate when said connection plate rotates through and beyond said toggle point.

9. (currently amended) An air break actuator as claimed in claims ~~6 to 8~~ 3 wherein said slot of said switch plate is of identical shape to the slot of said operating plate.

10. (currently amended) An air break switch actuator as claimed in claims ~~6 to 9~~ 3 wherein said slot of said operating plate, when said connection plate is at its extremes of rotation, is in alignment with the slot of said switch plate.

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11. (currently amended) An air break switch actuator as claimed in ~~any one of claims 6 to 10~~ 3 wherein said connection plate is intermediate of the operating plate and said switch plate, said pins extend parallel to said axis.

12. (currently amended) An air break switch actuator as claimed in claims ~~7 to 11~~ 3 wherein said operating plate has two slots and said switch plate has two slots, said connection plate providing two pins, one for each of the pairs of slots.

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13. (currently amended) An air break switch actuator as claimed in ~~any one of claims 3 to 12~~ 3 wherein said linkage means includes a connection rod acting directly on and at a circumferential point of the connection plate, said connection rod connected to a crank pivoted about a fulcrum provided by said trigger [[arm]] means, wherein said biasing means is provided to act on said crank to bias said connection rod toward said connection plate.

14. (currently amended) An air break switch actuator as claimed in claim [[1]] 3 wherein said trigger [[arm]] means is pivotably located to said structure providing means to displace said fulcrum with a component of movement in a direction tangential to the arc of movement of the connection point of the connection rod to the connection plate.

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15. (currently amended) An air break switch actuator as claimed in ~~any one of claims 7 to 14~~ 3 wherein said pawl is movably mounted from said structure providing means to selectively lock the rotation of the switch plate.

16. (original) An air break switch actuator as claimed in claim 15 wherein said pawl is able to move between a retracted condition and a locking position, wherein in a locking position it is able to engage with a complementary shaped notch of said switch plate.

17. (original) An air break switch actuator as claimed in claim 16 wherein said pawl is movable from said engaged condition to said retracted condition, respondent to the rotational position of said connection plate, by a cam follower which follows the contour of an appropriately shaped cammed surface of said connection plate.

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18. (original) An air break switch actuator as claimed in claims ~~16 or 17~~ 16 or 17 wherein said pawl is movable from said retracted condition to said engaged condition, respondent to the